REMARKS

Claims 1-25 are pending in this application.
Claims 13-25 are withdrawn from consideration
Claims 5, 7,9 and 11 are objected to.
Claims 1-4, 6, 8, 10 and 12 are rejected.

The office action dated May 21, 2004 indicates that claims 5, 7, 9 and 11 contain allowable subject matter. Although these claims were objected to for depending from rejected base claims, the office action indicates that these claims would be allowable if rewritten in independent form.

Claim 5 has been rewritten in independent form, and claims 3-4 and 6 have been amended to depend from claim 5. Claims 3-6 should now be allowable.

Claim 1 has been amended to recite subject matter that the office action considers allowable (in claims 7 and 11). Therefore, claim 1 and its dependent claims 2 and 7-12 should now be allowable.

Claim 23 has been amended to depend from claim 1. Although withdrawn from consideration, claim 23 and its dependent claims 24 should now be allowable.

Claim 25 has been cancelled. Claims 13-22 have also been cancelled. Cancelled claims 13-22 are presently being prosecuted in a divisional.

The office action rejects claim 11 under the judicially created doctrine of obviousness-type double patenting, contending that claim 11 recites essentially the same invention as claim 5 of U.S. Patent No. 6,590,806. The office action

further contends that the difference between claims 5 of the '806 patent and 11 of the present application is obvious in view of Zhu. The double patenting rejection of claim 11 is respectfully traversed.

Claim 5 of the '806 patent recites a memory cell apparatus comprising a first and a second data layer comprising magnetic material; a first and a second nonconductive separation layer; and an antiferromagnetically coupled reference layer pair disposed between the first and second data layers. Each data layer is separated from the antiferromagnetically coupled reference layer pair by one of the separation layers. The first and second data layers have different coercivities

Claim 11 recites a magnetic memory cell comprising first and second magneto-resistive devices connected in series, the first magneto-resistive device having a first sense layer, the second magneto-resistive device having a second sense layer. The first and second sense layers have different coercivities and different material compositions.

The examiner offers his opinion that, in view of claim 5 of the '806 patent, that it would be obvious to change the coercivity of the sense layers by changing the material. However, claim 5 of the '806 patent doesn't teach or suggest that different coercivities can be achieved by using different materials for the sense layers and no other documents made of record teach suggest it. Because the examiner's opinion is not supported by the prior art, the double patenting rejection of claim 11 should be withdrawn.

The examiner is respectfully requested to issue a notice of allowability. The examiner is invited to contact the undersigned to discuss any remaining issues.